

Appl. No. 10/649,052
Amendment dated Feb. 6, 2005
Reply to Office Action of Dec. 5, 2005
Docket No. BOC9-2003-0017 (386)

REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of December 5, 2005 (Office Action). As this response is timely filed within the three-month statutory period, no fee is believed due.

In paragraphs 2-3 of the Office Action, the Examiner has rejected claims 1-9 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,915,001 to Uppaluru (hereinafter "Uppaluru").

Independent Claims 1, 3-6, 8, and 9 have each been amended so as to emphasize certain aspects of Applicants' invention. As discussed herein, the amendments are fully supported in the Specification, and no new matter has been introduced by the amendments.

I. Applicants' Invention

It may be helpful to reiterate certain aspects of Applicants' invention before addressing the cited reference. One aspect of the invention is the aggregation of multiple, different interactive voice response (IVR) services under a centralized system. More particularly, the invention provides a master IVR service through which a caller can access several different IVR systems. Using the master IVR service, the caller can, for example, register with the master IVR service and provide access information for one or more IVR systems. After registering with the master IVR service, the caller need only recall the access number and logon information for the master IVR service. Once the caller is logged on to the master IVR service, the caller can access any other IVR systems which the caller has registered with the master IVR service. That is, the master IVR service can log the caller into other IVR systems, forward composite caller queries, each corresponding to a sequentially related set of commands to the IVR systems, and retrieve

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information from the IVR systems to relay back to the caller. Notably, information retrieved from the IVR systems is achieved by submitting a pre-stored sequentially related query to a selected IVR system.

One embodiment of the invention is a method of aggregating IVR services from one or more interactive voice response systems. The method can include, for at least one caller, storing service information for one or more services within a master IVR system. (See, e.g., Specification, p. 5, lines 10-29.) The service information can specify pre-stored sequentially related instructions for navigating an interactive voice response menu hierarchy for at least one service. For example, a specific individual service can be accessed through a corresponding one of the IVR systems using the pre-stored sequentially related query.

The method further can include receiving a call from the caller and receiving an input from the caller over the call. The input can identify one or more services and corresponding interactive voice response systems. Accordingly, the IVR system corresponding to the identified service can be accessed on behalf of the caller through the master IVR system. (Specification, p. 5, line 30 – p. 6, line 10.) A composite query presented by the caller and corresponding to a sequentially related set of commands can be submitted to the interactive voice response system of the identified service. Information from the IVR system corresponding to the identified service can be retrieved and provided to the caller through the master IVR system. (Specification, p. 6, lines 6-10.)

In yet another embodiment, the service information can include login information for each of the services. Additionally, according to this embodiment, the accessing step can include logging on to one or more of the IVR systems. The service information further can specify pre-stored sequentially related instructions for navigating an

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interactive voice response menu hierarchy for one or more of the services. Also, the caller input can specify a composite sequentially related caller query for information to be retrieved from one or more of the services. Accordingly, the accessing step can include submitting the caller composite sequentially related query to one or more of the services.

II. The Claims Define Over The Cited Reference

As noted above, Claims 1-9 were deemed by the Examiner to be anticipated by Uppaluru. Uppaluru is directed to a system and method intended to extend conventional Internet and Web-based technologies so as to allow a user to access and navigate among voice-based documents. (Col. 4, lines 38-51; Abstract) Uppaluru utilizes information that is formatted according to known MIME and HTML standards but that is further customized to include "extensions" for voice information access and navigation. (Col. 7, line 5 – Col. 9, line 2; Abstract) The voice documents in Uppaluru are linked to form a "voice web" using HTML hyper-links that are accessible to subscribers using voice commands, touch-tone inputs, and other selection means. (Col. 4, line 62 – Col. 5, line 2; Col. 5, line 57 – Col. 6, line 52; Abstract.) Applicants respectfully submit, however, that Uppaluru fails to expressly or inherently teach each feature of Applicants' invention.

Independent Claim 1, as amended, is directed to forwarding a composite query corresponding to a sequentially related set of commands from at least one caller to at least one of the plurality of interactive voice response systems supporting a service selected by the caller. The composite query can be a single command corresponding to a sequence of related commands that are presented to the interactive voice response (IVR) in a sequential order. The commands can be one of a phrase of spoken words, a single word, a text sequence, a single text, a tone sequence, or a single tone. The IVR can

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receive the composite query one command at a time, though the caller need only present a single command; that is, a composite query.

Claims 3 and 4, as amended, recite that the user can store the composite sequentially related query within a service information which can be accessed when the user requests a particular service. For example, the caller may be familiar with the IVR hierarchy dialogue structure and may already know the sequence of words that should be presented to access a certain service. The user may associate an IVR dialogue sequence for a car dealership such as [Dealer name]->Service->Oil Change with "[Car Model name] oil change". Understandably, the caller can pre-store sequentially related sequence commands using a terminology that the caller is more familiar with and thus more likely able to recall. Claims 5 and 6, as also amended, recite, respectively, a system for aggregating interactive voice response services from a plurality of interactive voice response systems using a composite query.

The method recited in amended independent Claim 1 includes storing service information for a plurality of services within the master interactive voice response system, wherein each service is accessible through a corresponding one of the plurality of interactive voice response systems. The master interactive voice response system provides an interface between the caller and the services by performing at least one of storing caller-specific information, accessing at least one of the plurality of interactive voice response systems on behalf of a caller, submitting a composite query corresponding to a sequentially related set of commands from the caller to at least one of the plurality of interactive voice response systems, and providing a query response from at least one of the plurality of interactive voice response systems to the caller. (See, e.g., Specification, p. 9, paragraph [0032], explicitly describing that "*the caller can specify one or more input sequences . . .*").

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Uppaluru does not expressly or inherently disclose, for example, submitting sequentially related information for each of a plurality of services within a master interactive voice response system, as recited in amended independent Claims 1, 5, and 6. Uppaluru does disclose that *"Navigation is also accomplished by system commands such as next, previous, reload, home, bookmarks, help, fax, and history which are invoked by specific touch tone sequences or utterances of the words"* (Col. 8, lines 32-51). However, the sequences to which Uppaluru refers are not sequentially related. Clearly there is no connection with the sequences disclosed by Uppaluru. For example, a combination such as reload-home-bookmarks-help, as presented, has no definitive hierarchical meaning. Clearly, Uppaluru is not teaching a composite, sequentially-related query for accessing a service.

In addition, Uppaluru further discloses that *"users can control the voice browser operations by issuing system commands such as stop, start, play, pause, exit, backup and forward."* (Col. 8, lines 32-51). Uppaluru presents a list of related commands. However, once again with Uppaluru, there is no literal connection or relationship among the words for combining the commands into a sequence for querying an IVR system. For example, within the context of a multimedia player, as inferred, it would not make sense to stop, then start, then play, then pause. There is clearly no suggestion for using the commands in a composite and sequentially-related order. Logically, it is highly likely that Uppaluru is simply presenting the list to illustrate the list of vocabulary commands accessible to a user for invoking a service. Notably, Uppaluru fails to even contemplate a sequentially-related query.

Independent claims 1, 5, and 6, have been amended to emphasize certain features of Applicants' invention that distinguish the invention over the prior art. Namely, Applicants teach that the caller can instruct a master IVR service to call an IVR system

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using a composite query for receiving a service. In particular, *"the master IVR service can provide a programmed input sequence as specified by the caller to the IVR system"* (Specification, p. 8, paragraph [0029] line 8-to paragraph [0030] line 1). A programmed input sequence can consist of sequentially related commands for forming a query. Applicants also disclose that the input sequence is related. For example, *"the master IVR service also can query the caller for instructions for navigating menu hierarchies for each registered IVR system. Thus, the caller can specify one or more input sequences, whether touch tone inputs, recorded caller speech, keyed in text to be played by the TTS system, commands for the TTS system to play speech, or any combination thereof, for accessing functions that are routinely used by the caller"* (Specification, p. 8, paragraph [0032]). The organizational structure and relationships among elements within an IVR hierarchies are known to be related.

Applicants also teach that the composite query can be submitted to an IVR: *"In particular, the master IVR service can provide instructions for navigating a menu hierarchy of the IVR system. The instructions can specify one or more inputs for instructing the selected IVR system to navigate to a particular menu location or option for performing a task . . . the caller can request that the master IVR service transmit an input sequence."* (Specification, p. 11, paragraph [0038]).

Applicants respectfully submit that Uppaluru thus fails to teach or suggest each of the features of independent Claims 1, 5, and 6, as amended, and that the claims therefore define over the prior art. Applicants further respectfully submit that whereas the remaining claims each depend from one of the amended independent claims while reciting additional features, the dependent claims therefore also define over the prior art.

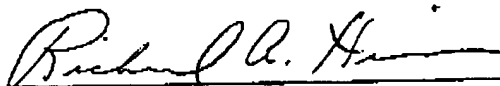
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CONCLUSION

Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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